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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,481	07/29/2003	Gerard M. Cuomo	2946	7459
7590 01/03/2006			EXAMINER	
Beck & Tysver, P.L.L.C. Suite 100 2900 Thomas Avenue S. Minneapolis, MN 55416			KING, ANITA M	
			ART UNIT	PAPER NUMBER
			3632	

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,481

Applicant(s)

CUOMO, GERARD M.

Examiner

Anita M. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

This is the fifth office action for application number 10/629,481, Surgical Microscope Apparatus, filed on July 29, 2003.

***Cancellation of Claims***

Claims 2 and 3 have been canceled per applicant's request.

***Claim Rejections - 35 USC § 112***

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is an inconsistency between the language in the preamble and certain portions in the body of the claim, thereby making the scope of the claim unclear. The preamble in claim 1 clearly indicates that a subcombination is being claimed, e.g., "a surgical microscope system for positioning a variable focus surgical microscope over a dental chair...." This language would lead the examiner to believe that the applicant intends to claim only the subcombination of "a surgical microscope system," the microscope and the dental chair being only functionally recited. This presents no problem as long as the body of the claim also refers to the microscope and the dental chair functionally.

The problem arises when the microscope and the dental chair are positively recited within the body of the claim, such as, "a foot control whereby the dental chair can be raised or lowered; and a hand control whereby the patient position can be

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rotated about said hinge" and "the microscope rotationally attached to the coupler...".

There is an inconsistency within the claim; the preamble indicates subcombination, while in at least one instance in the body of the claim there is a positive recital of structure indicating that the combination of a surgical microscope system, a microscope, and a dental chair are being claimed. The examiner cannot be sure if applicant's intent is to claim merely the surgical microscope system or the surgical microscope system in combination with the microscope and/or the dental chair.

Applicant is required to clarify what the claims are intended to be drawn to, i.e., either the surgical microscope system alone or the combination of the surgical microscope system and the microscope and/or the dental chair. Applicant should make the language of the claim consistent with applicant's intent. In formulating a rejection on the merits, the examiner is considering that the claims are drawn to the combination and the claims will be rejected accordingly. If applicant indicates by amendment that the combination claim is the intention, the language in the preamble should be made consistent with the language in the body of the claims. If the intent is to claim the subcombination, then the body of the claims must be amended to remove positive recitation of the combination.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,571,038 to Jako in view of U.S. Patent 3,809,454 to Brambring, in view of U.S. Patent 4,249,900 to Hoelzer et al., hereinafter, Hoelzer, in view of U.S. Patent 4,548,373 to Komura, in view of U.S. Patent 2,697,776 to Wale, and in further view of U.S. Patent 3,357,740 to Vaughn et al., hereinafter, Vaughn. Jako discloses a surgical microscope system for operating a surgical microscope over a dental chair of the type having a hinge for rotating the patient position near the patient's hips, comprising: a substantially vertical microscope support arm (see Fig. 1) adapted for fitment on a dental chair adapted for vertical motion in concert with chair vertical motion (Col. 3, line 16ff); an articulated horizontally movable microscope positioning arm (14) having a plurality of hinged links, connected to the vertical support arm; and a microscope coupler (12) for connecting the microscope to the positioning arm; whereby the microscope system is supported for vertical motion and location the support arm; and whereby motion of a portion of the chair is used to focus the microscope.

Jako discloses the claimed invention except for the limitations of the links being for restricting arm motion solely in a horizontal plane and a clamp. Brambring teaches a microsurgical operating unit for a microscope (22), including a substantially vertical microscope support arm (13), an articulated horizontally movable microscope positioning arm (21) having a plurality of hinged links (21a & 21b), each link having a vertical axis for restricting arm motion solely to a horizontal plane, the positioning arm connected to the vertical support arm with a clamp (17), and the clamp allowing vertical orientation and vertical motion along the length of the vertical support arm. It would

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have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the system in Jako to have included the unit as taught by Brambring for the purpose of moving the microscope to any position desired by the user.

Jako combined with Brambring discloses the claimed invention except for the limitation of four or more hinged links. Hoelzer teaches a system used in combination with a dental chair (18) having a vertical support (12), an articulated horizontally movable positioning arm (14) having four hinged links (14A, 14B, 14C, 14D), each link having a vertical axis for restricting arm motion solely to a horizontal plane and connected to the vertical support. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the positioning arm in Jako combined with Brambring to have four or more hinged links as taught by Hoelzer for the purpose of providing an increased length of the arm and to provide more adjustability to the arm to accommodate the user.

Jako further discloses a terminal link (12). Jako combined with Brambring and Hoelzer disclose the claimed invention except for the limitation of the terminal link having a repositionable axis of rotation orthogonal to the vertical support arm. Komura teaches a microscope system including a vertical support arm (10), an articulated horizontally movable positioning arm having a plurality of links (2 & 3), a microscope coupler (30), a terminal link (4) with a repositionable axis of rotation orthogonal to the vertical support arm proximate the microscope and the microscope rotationally attached to the coupler along an axis that is perpendicular to the length of the terminal link and

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that lies within a plane which is perpendicular to the ground. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the system in Jako combined with Brambring and Hoelzer to have included the terminal link as taught by Komura for the purpose of providing an alternative means for aiding in the positioning of the microscope in relation to the patient and the vertical support arm.

Jako combined with Brambring, Hoelzer, and Komura disclose the claimed invention except for the limitation of the terminal link having several discreet pre-selected angles of inclination. Wale teaches a system having a terminal link (10) with a repositionable axis of rotation, and having an opening (12) for receiving a cylindrical member (14) and a pivot pin (22) for insertion into an aperture in a tube (26) whereby a support (40) may be inclined at any of several discreet pre-selected angles with respect to another support (C). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the terminal link in Komura to have included the link as taught by Wale for the purpose of providing an alternative, mechanically equivalent means for adjusting an object such as a microscope in a variety of positions in relation to a support system.

Hoelzer further teaches a foot control (26) whereby the dental chair can be raised and lowered. Jako combined with Brambring, Hoelzer, Komura, and Wale disclose the claimed hand control. Vaughn teaches that it is known in the dental chair art to have a chair including a foot control (51) whereby the dental chair can be raised and lowered and a hand control (29) whereby the patient position can be rotated about a hinge (35).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the chairs in Jako and Hoelzer to have included both a foot control and a hand control as taught by Vaughn for the purpose of providing a convenience of the dentist to promote his efficiency.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 3,135,550 to Bosack

U.S. Patent 3,381,997 to Fritz et al.

U.S. Patent 3,776,614 to Kloots et al.

U.S. Patent 4,523,911 to Braetsch et al.

Bosack and Fritz et al. both disclose an adjustable dental chair. Kloots et al. disclose a microscope attached to a vertical support and a positioning arm. Braetsch et al. discloses an adjustable dental chair having a foot control.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP



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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita M. King whose telephone number is (571) 272-6817. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anita M. King  
Primary Examiner  
Art Unit 3632

December 27, 2005